

Figure 1 Comparison of H_2S adsorption on SiO_2 and $AgNO_3/SiO_2$ at $70^\circ C$

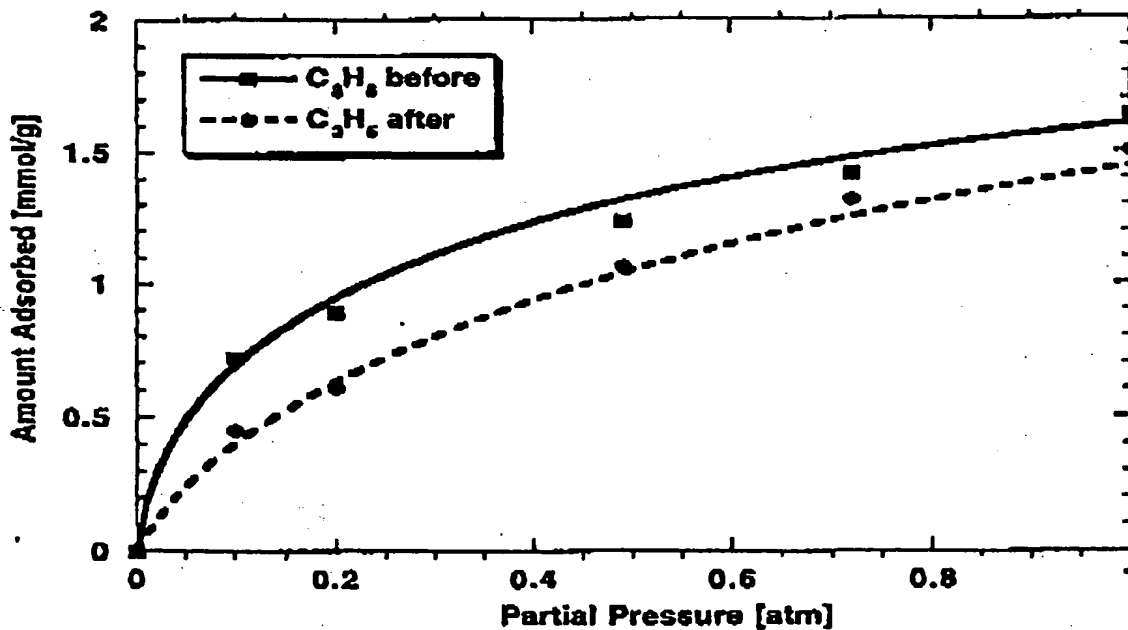


Figure 2 H_2S effect on olefin adsorption on $AgNO_3/SiO_2$.

C_2H_4 Cyclic Adsorption on $AgNO_3/SiO_2$

Isotherm @ 50 °C; P = 1 atm

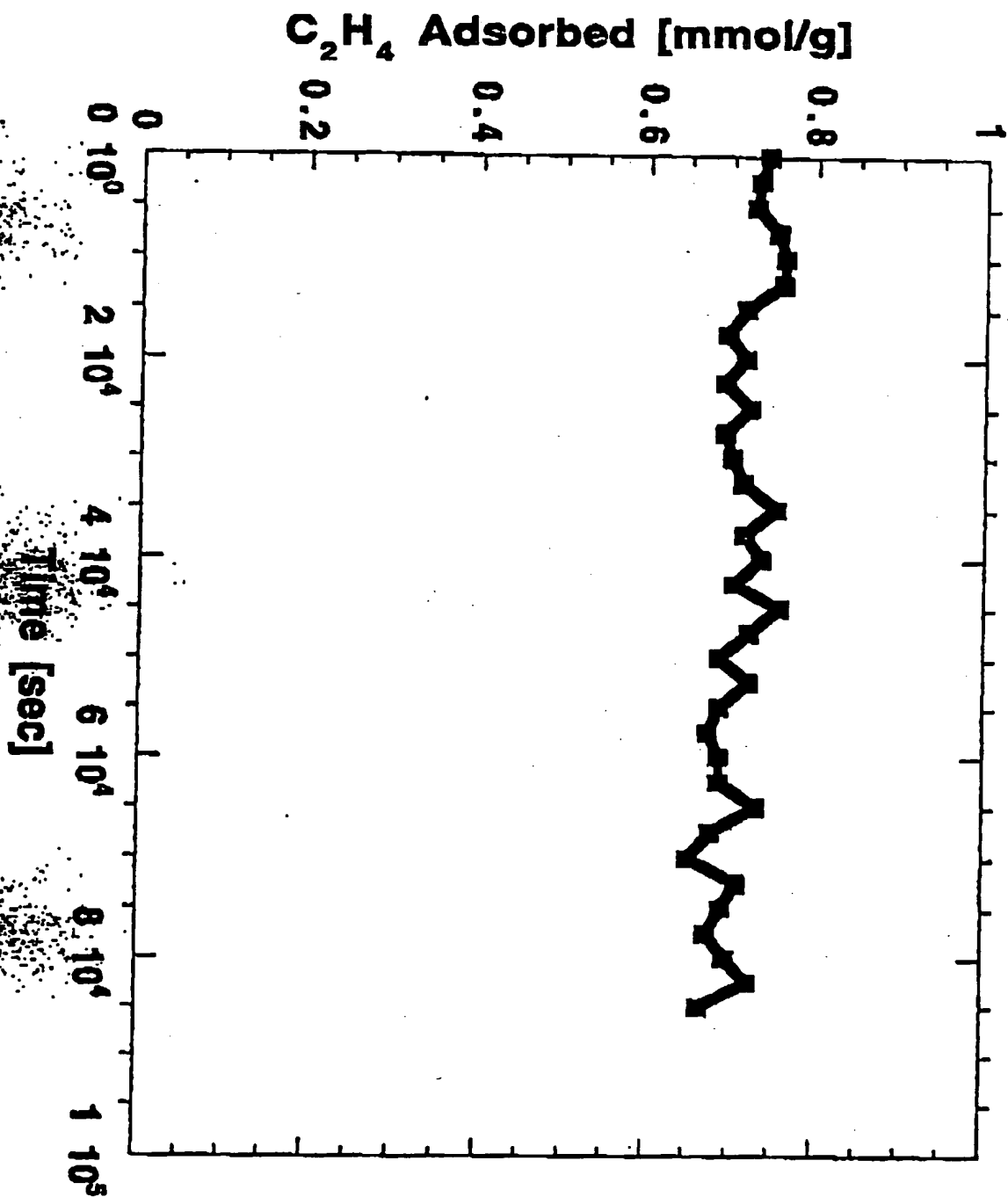


Fig 3

C_3H_6 Cyclic Adsorption on $AgNO_3/SiO_2$

Isotherm @ 50 °C; P = 1 atm

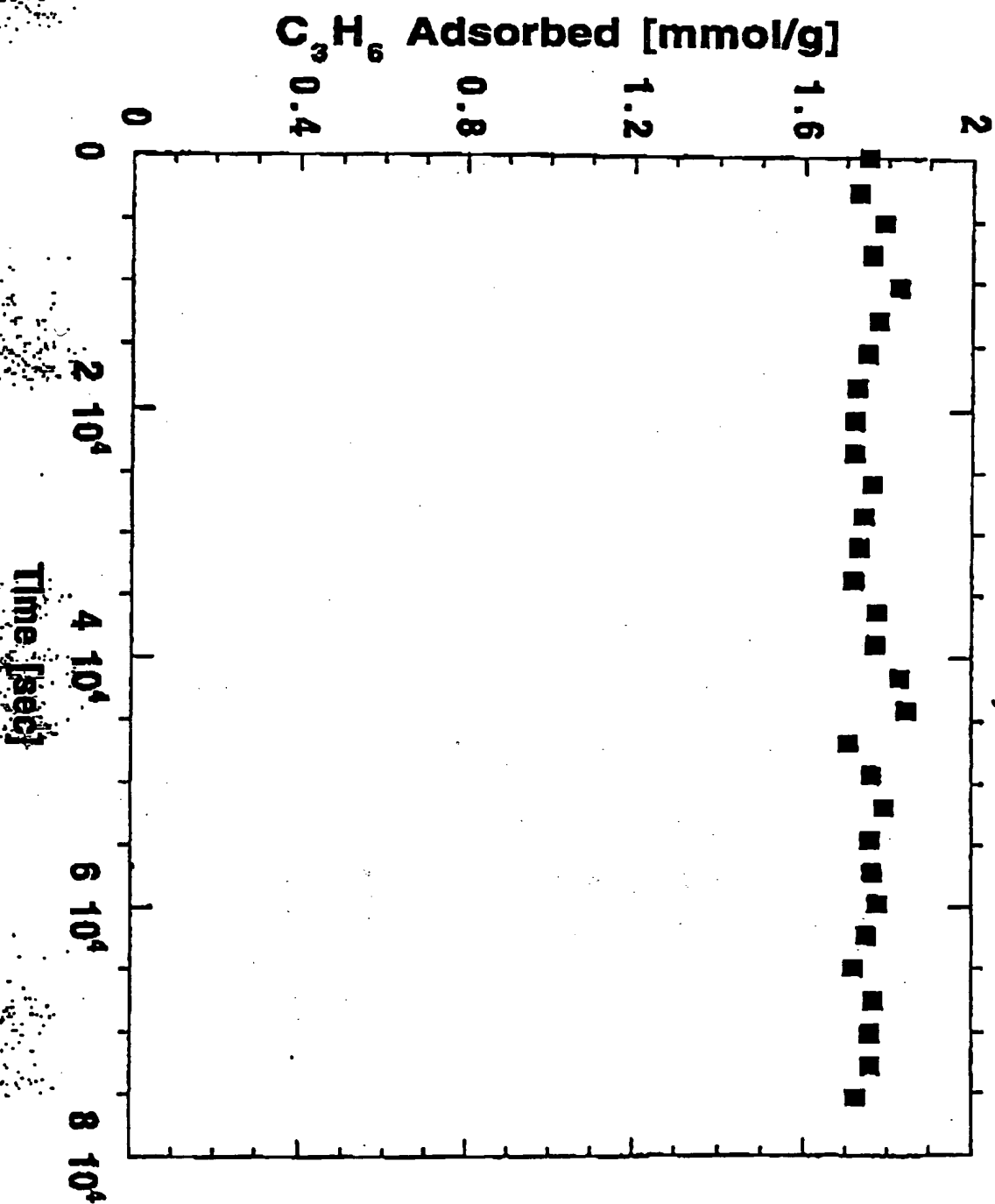


Fig 4

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C_3H_6 Cyclic Adsorption on $AgNO_3/SiO_2$

Isotherm @ 120 °C; P = 1 atm

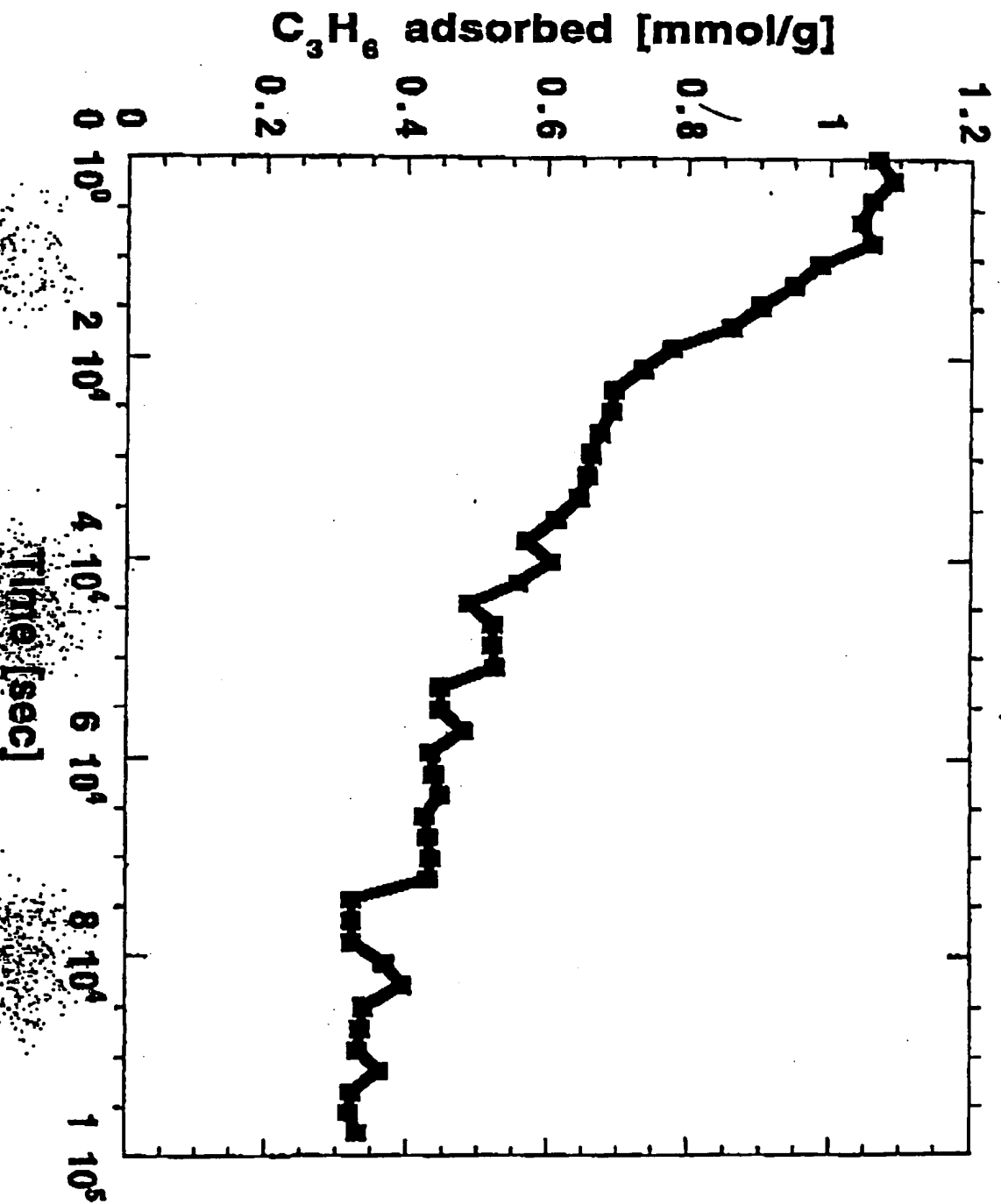


Figure 5

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H₂S Adsorption and Desorption on SiO₂ (298K)

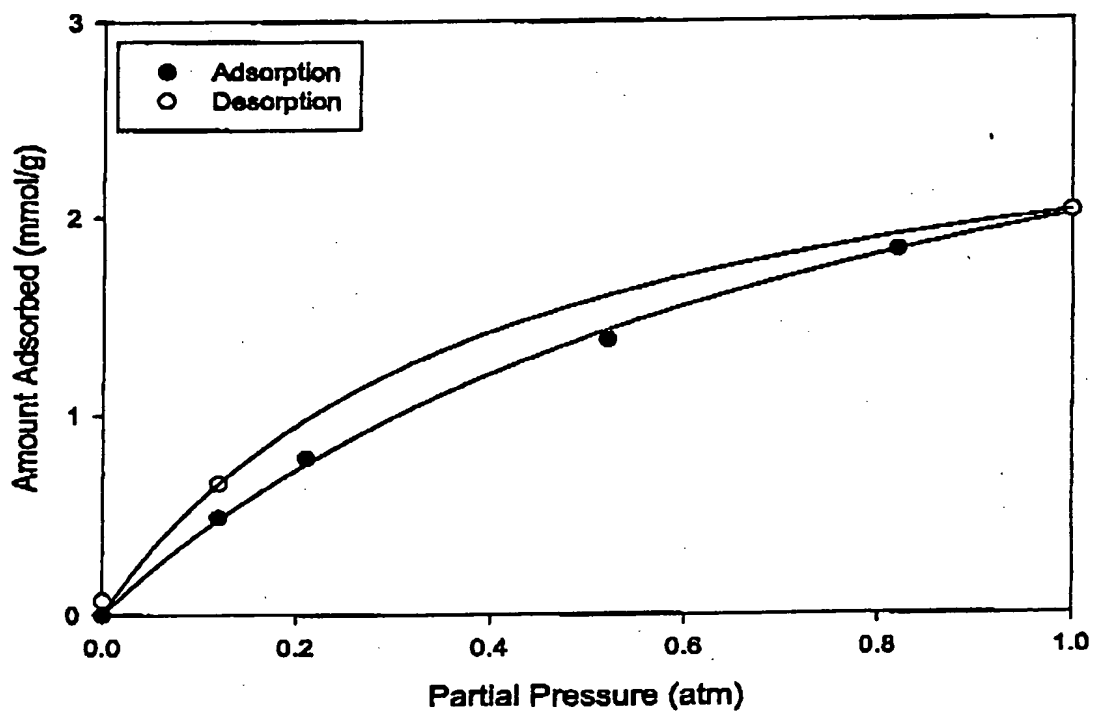


Fig 6

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H₂S Adsorption and Desorption on AgNO₃/SiO₂ (298K)

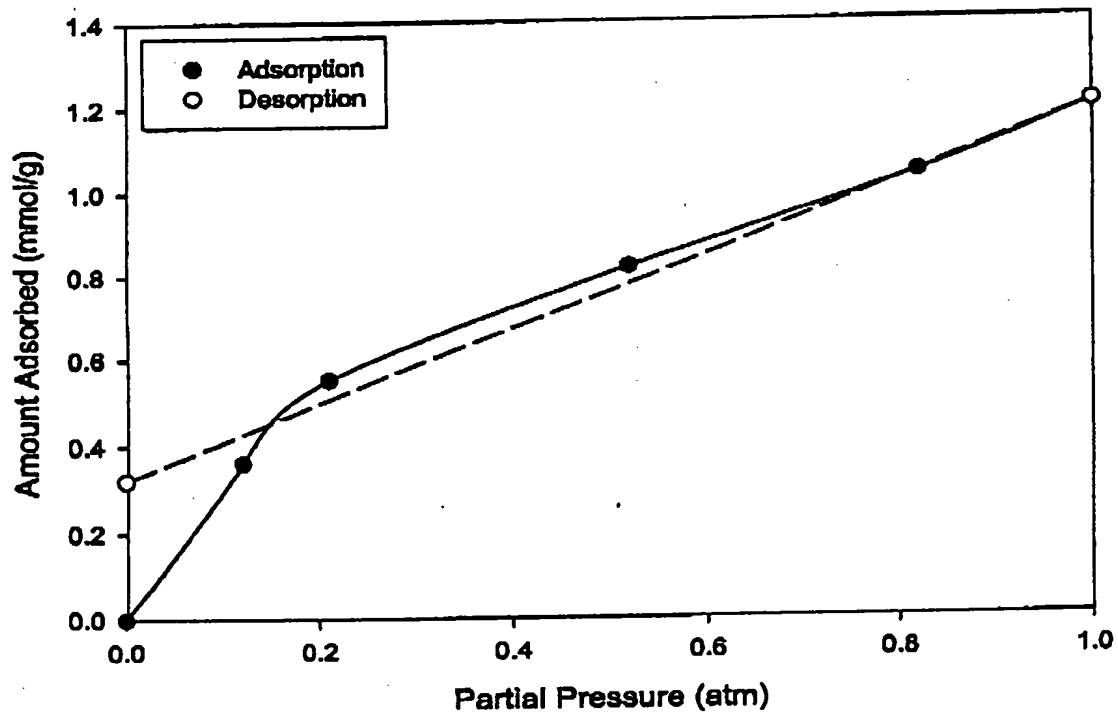


Fig 1

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H₂S Adsorption and Desorption on AgNO₃/SiO₂ (343K)

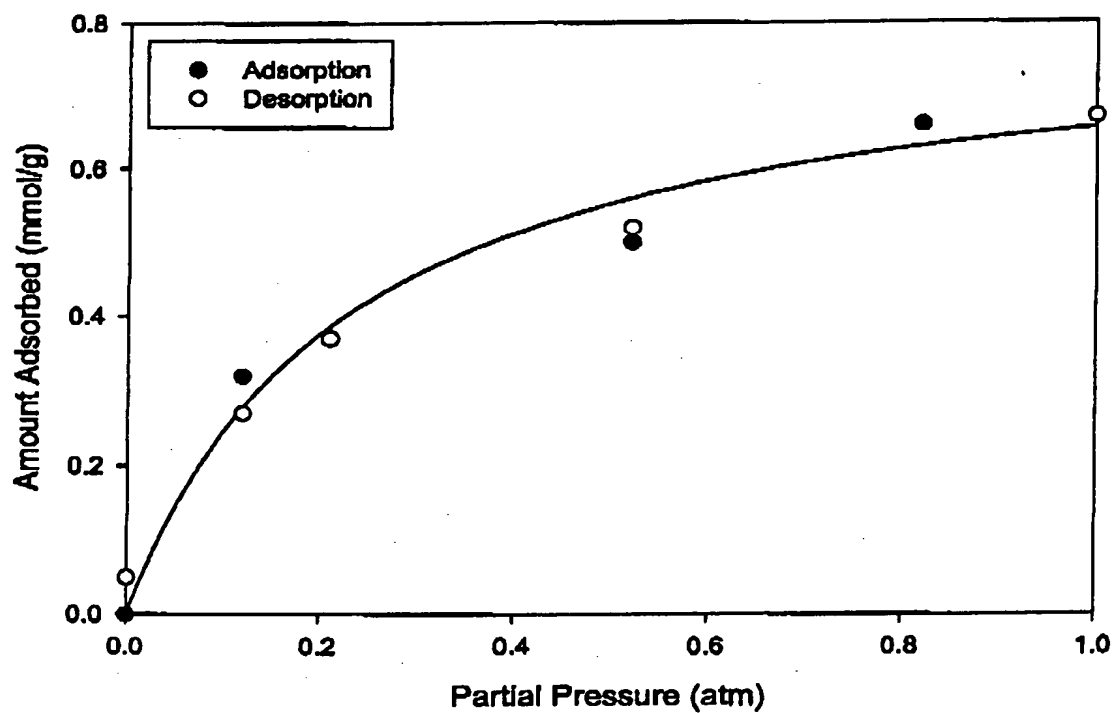


Fig 2

Effect of H_2S Poisoning on $\text{AgNO}_3/\text{SiO}_2$
Capacity for C_3H_6 (343K)

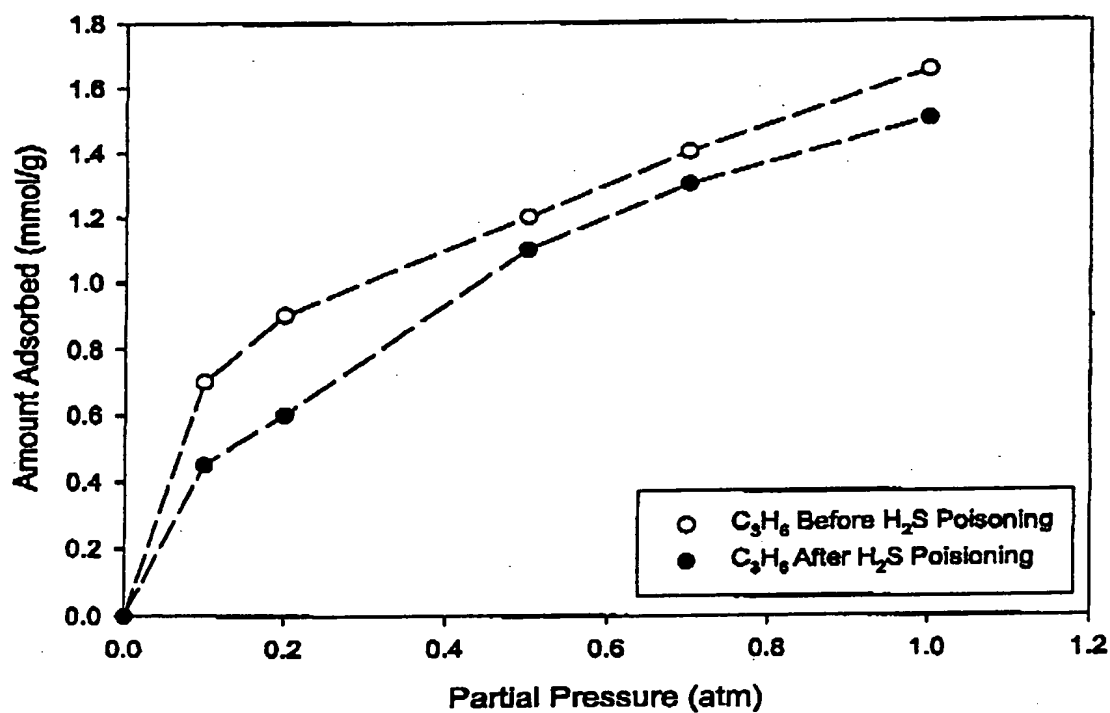
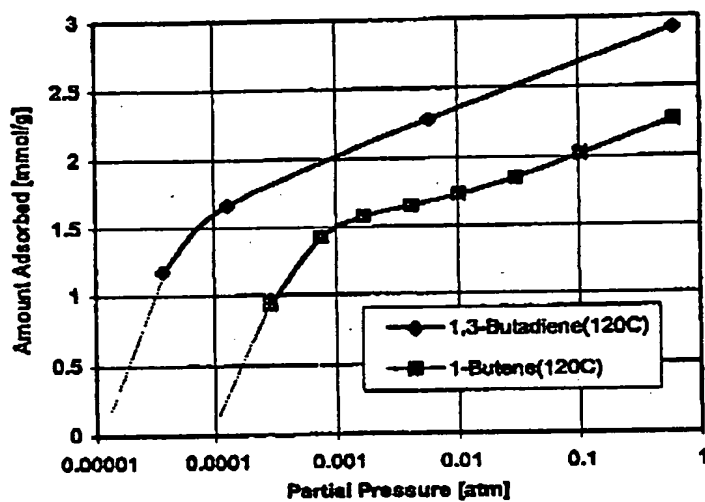
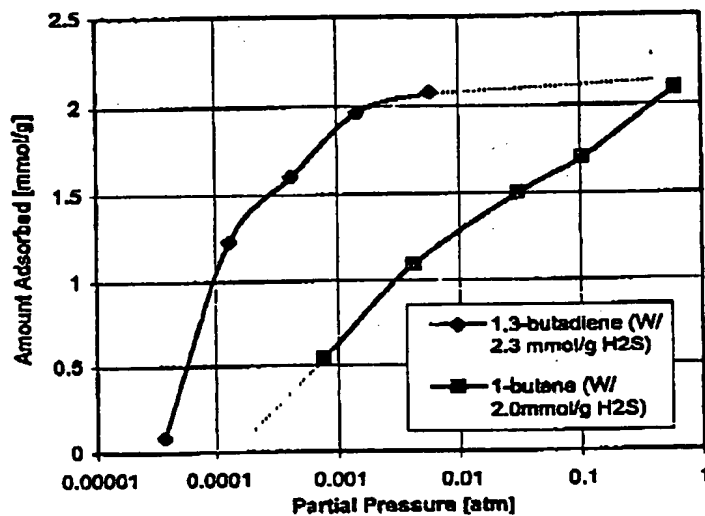


Figure 9

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(a) Before H₂S exposure

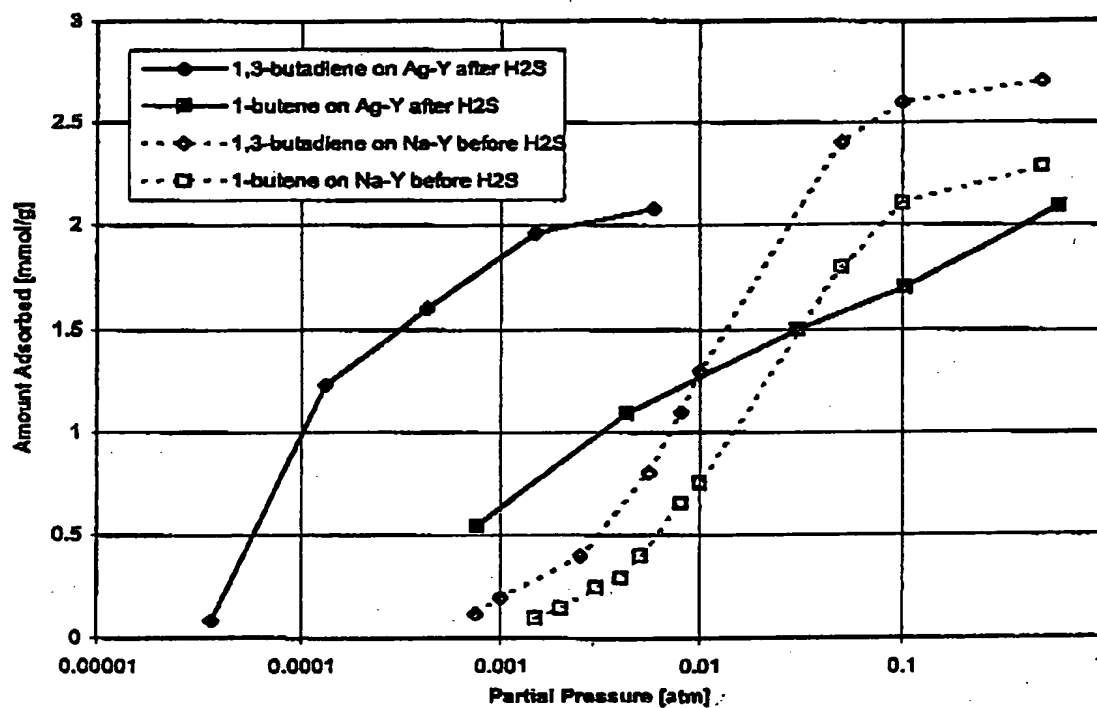


(b) After H₂S Exposure

Isotherms of 1,3-butadiene and 1-butene at 120 °C.

Fig 10

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Ag-Y after H₂S exposure v.s. Na-Y before H₂S exposure

Fig. 11

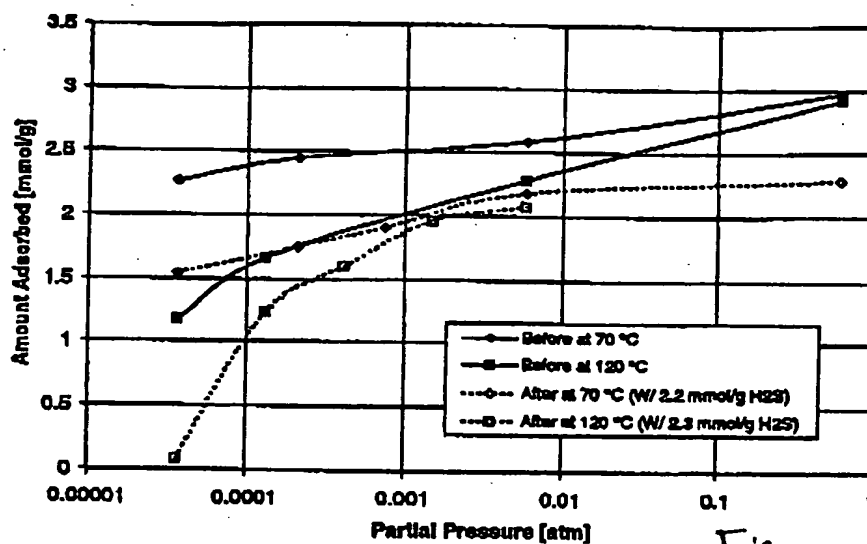


Fig 12a
Isotherms of 1,3-butadiene before and after H₂S Exposure

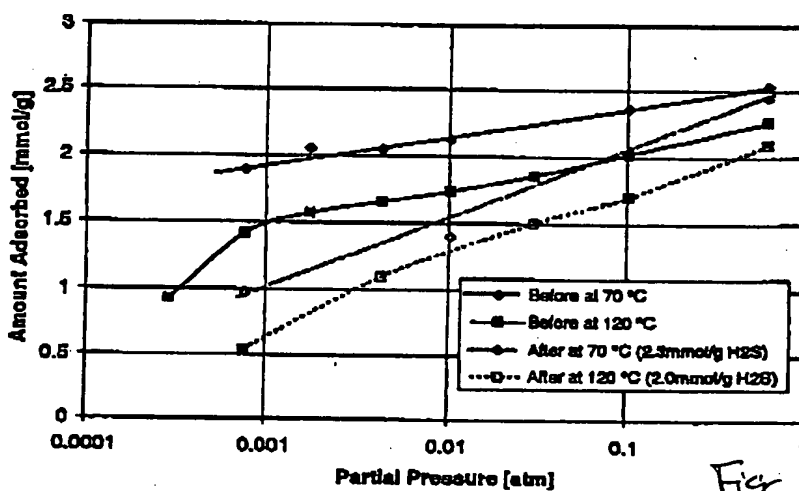


Fig 12b
Isotherms of 1-butene before and after H₂S exposure.

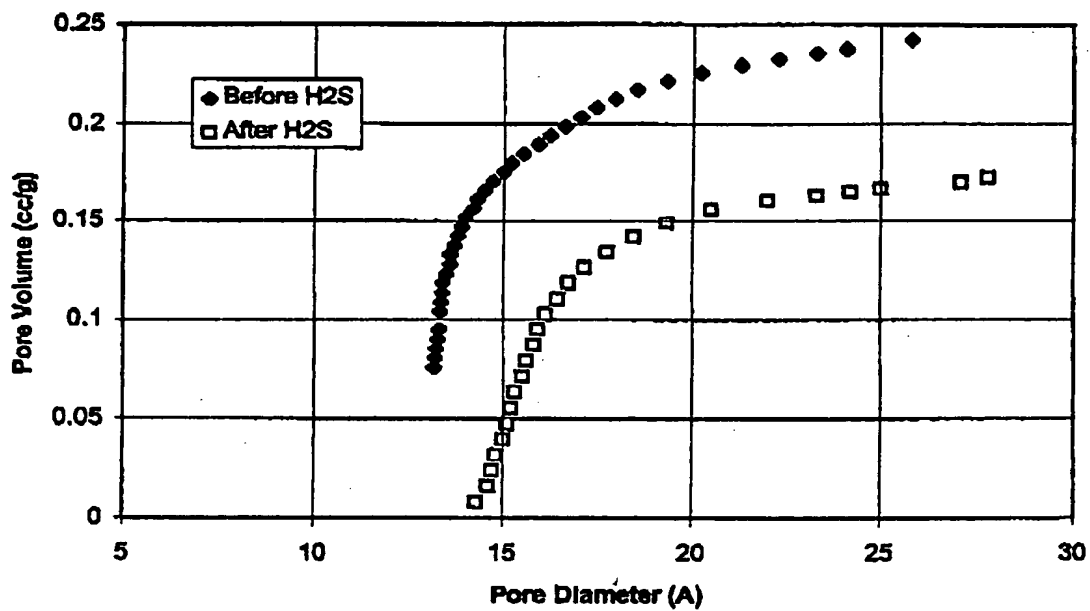
Table. Calculated Heat of Adsorption

	1,3-butadiene	1-butene
Before H ₂ S Exposure	24-29 kcal/mol	16-22 kcal/mol
After H ₂ S Exposure	7-11 kcal/mol	6-7 kcal/mol

Fig 12c

Fig 12

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Cumulative pore volume of Ag-Y before and after H₂S exposure.

Fig 13

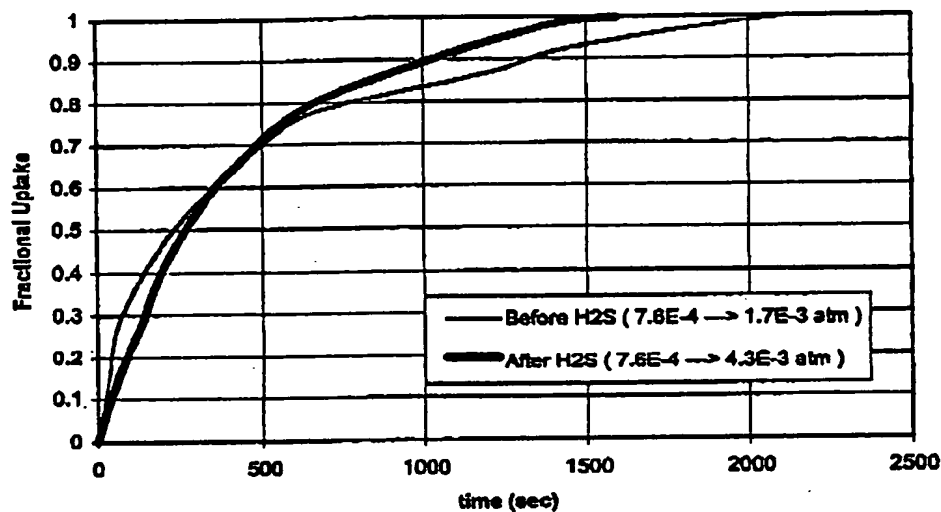


Fig 14 (a) 1-butene at 120 °C

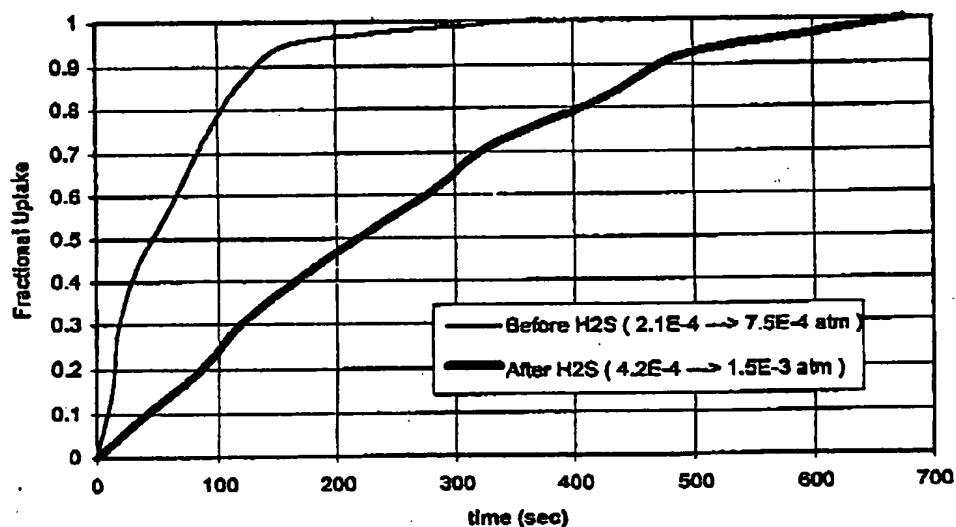


Fig 14 (b) 1,3-butadiene at 120 °C

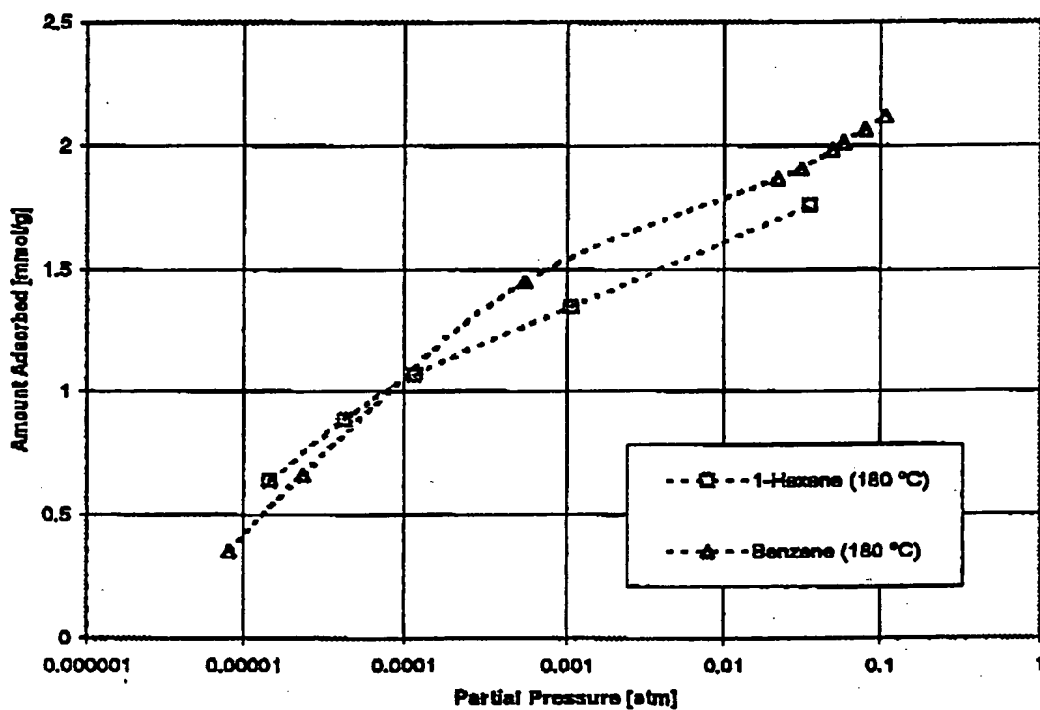
Fractional uptake curves of 1-butene and 1,3-butadiene before and after H₂S exposure.

Table. Diffusion time constants (1/s)		
	Before H ₂ S exposure	After H ₂ S exposure
1-butene	1.8×10^{-4} ($7.6 \times 10^{-4} \rightarrow 1.7 \times 10^{-3}$ atm)	1.5×10^{-4} ($7.6 \times 10^{-4} \rightarrow 4.3 \times 10^{-3}$ atm)
1,3-butadiene	8.7×10^{-4} ($2.1 \times 10^{-4} \rightarrow 7.5 \times 10^{-4}$ atm)	2.6×10^{-4} ($4.2 \times 10^{-4} \rightarrow 1.5 \times 10^{-3}$ atm)

Fig 14c

Fig 14

2) Sorbent for purification of 1-Hexene by removal of Benzene.



Isotherms of benzene and 1-hexene on Ag-Y.

Fig. 15

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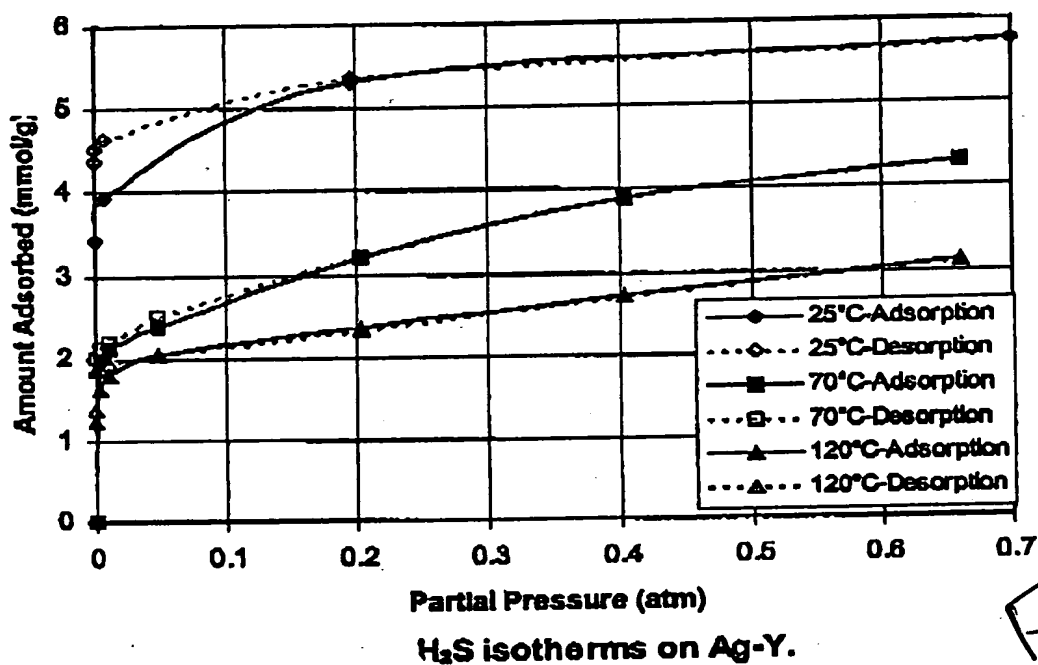
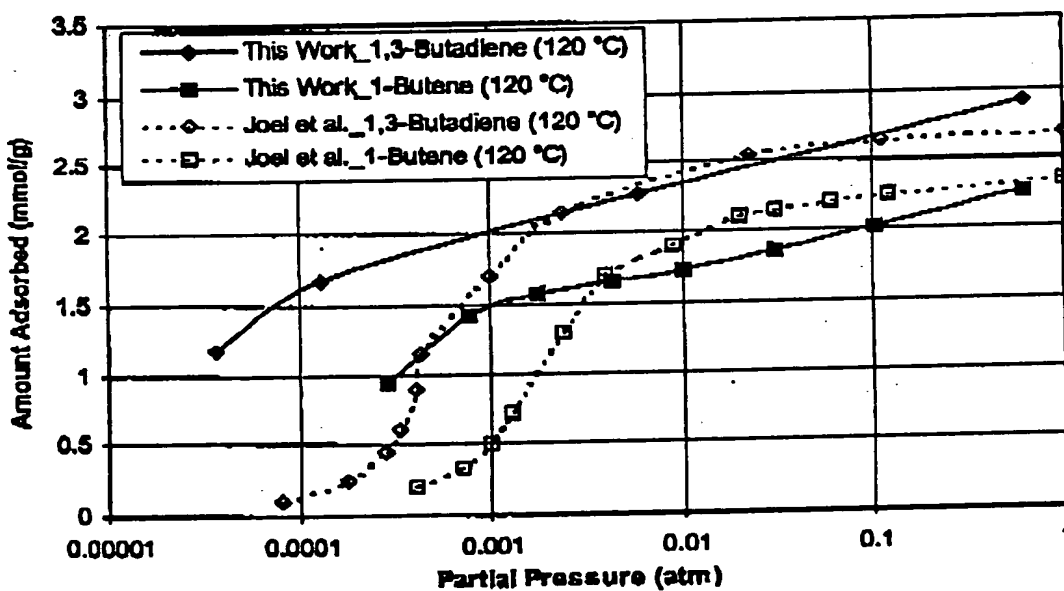


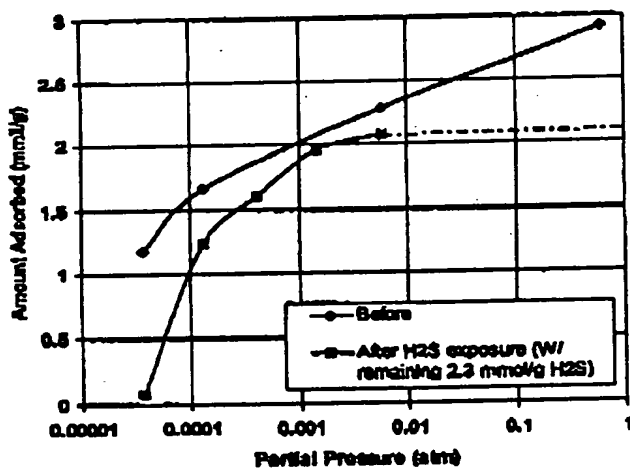
Fig 16



. Isotherms of C_4H_6 and C_4H_8 on Ag-Y at 120 °C.

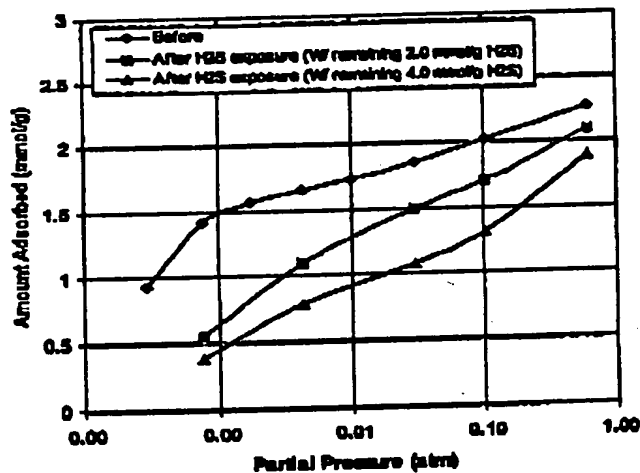
Fig 17

FIG-18

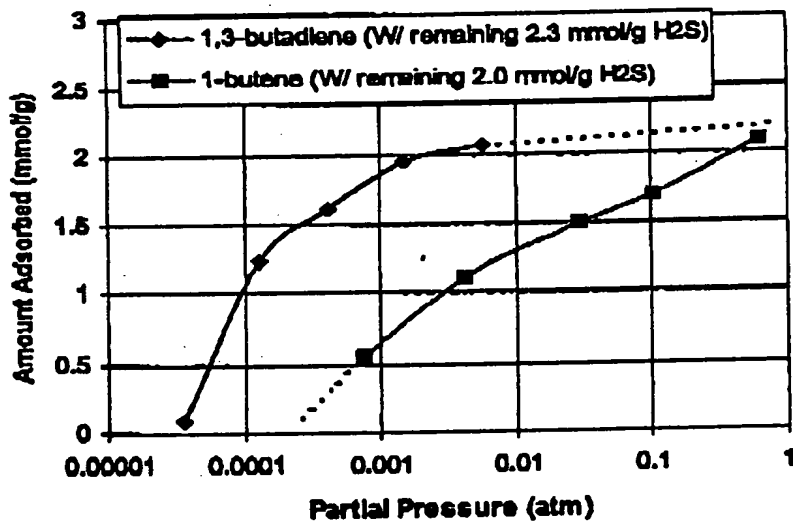


Isotherms of 1,3-butadiene before and after H₂S exposure at 120 °C.

FIG-19



Isotherms of 1-butene before and after H₂S exposure at 120 °C.



Isotherms of 1,3-butadiene and 1-butene after H₂S exposure.

Fig 20